

### REMARKS

This Application has been carefully reviewed in light of the Office Action mailed May 7, 2010. At the time of the Office Action, Claims 1-12 and 16-20 were pending, and Claims 13-15 were previously cancelled. All pending Claims 1-12 and 16-20 were rejected in the Office Action. Claims 1, 3, 10, 11, and 20 are herein amended, and Claim 9 and 19 are cancelled without prejudice or disclaimer. Applicant respectfully requests reconsideration and allowance of all pending claims.

#### Rejections under 35 U.S.C. § 112

Claim 9 was rejected by the Examiner under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Applicant has cancelled Claim 9.

Claims 3-5 and 19 were rejected by the Examiner under 35 U.S.C. §112, second paragraph. Applicant has amended Claim 3 to provide proper antecedent basis, and has cancelled Claim 19.

Thus, Applicant requests that the rejections under 35 U.S.C. § 112 be withdrawn.

#### Rejections under 35 U.S.C. § 102

Claims 11-12 and 16-18 were rejected under 35 U.S.C. §102(b) as being anticipated by *Palma* (U.S. Patent No. 4,423,842). The Examiner alleges that *Palma* teaches “wherein the cavity 91 is completely empty (the cavity is annular in shape formed by wall 91 and post 90).” (Office Action, page 4). Thus, the Examiner is apparently defining the cavity in the needle tip as the space between the inner wall 91 of the opening formed in the valve 73’ and the post 90 that is received within the opening in the valve 73’ (see *Palma*, Figure 2).

Although Applicant does not agree that this amounts to a “completely empty cavity” in *Palma*, Applicant has amended independent Claim 11 to further distinguish from *Palma*, in order to advance prosecution in a timely manner. In particular, independent Claim 11 recites:

... wherein the tip comprises a cavity radially inwards from the sealing area, *the cavity being completely defined by inner walls formed in the needle tip*, and wherein the cavity is completely empty in order to achieve a desired flexibility of the tip such that ends of the needle tip around the cavity flex inwardly due to micrometric deformations of the seat part when engaged in the needle seat

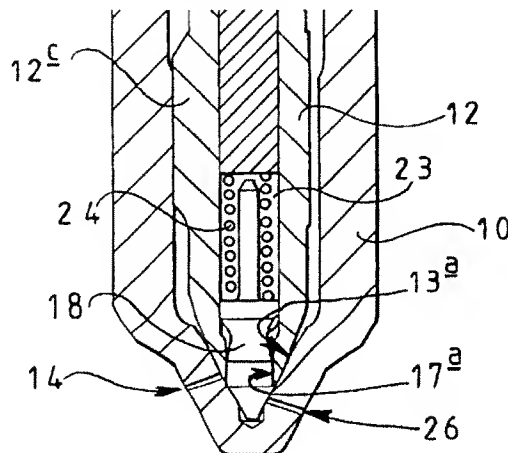
Thus, if *Palma* teaches a needle tip having a cavity, the cavity is completely defined by the inner walls (including wall 91) of the opening in valve 73' shown in Figure 2, and the post 90 cannot define part of the "cavity." Following this explicit language of amended Claim 11, *Palma* clearly does not teach a "completely empty" cavity, as post 90 is positioned within the opening in vale 73'.

Applicant reminds the Examiner that "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Furthermore, "the identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co. Ltd.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989).

Accordingly, Applicant submits that amended independent Claim 11 is allowable over *Palma*. Thus, Applicant respectfully requests allowance of Claim 11, as well as all claims that depend from Claim 11.

### **Rejections under 35 U.S.C. §103**

Claims 1-4, 6-8, 10, and 20 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Lambert* (U.S. Patent No. 6,338,445). in view of *Stier* (U.S. Patent No 6,631,854). The Examiner alleges that "Lambert discloses a material 24 affixed to an inner wall of cavity 17a, 23, 27." (Office Action, page 5). As shown in the portion of Figure 1 of *Lambert* copied below, item 24 of *Lambert* is a compression spring 24.



Although Applicant does not necessarily agree with the Examiner's position, Applicant has amended independent Claims 1, 10, and 20 to further distinguish from *Lambert* and *Stier*, in order to advance prosecution in a timely manner. For example, amended Claim 1 recites:

1. A valve body comprising a needle extending in an axial direction and a cartridge with a recess which takes in the needle and which comprises on one of its ends a seat plate that comprises a needle seat for the needle, wherein the needle further comprises a seat part with a sealing area that rests on the needle seat if it is pushed against the needle seat, wherein the seat part comprises a cavity radially inwards from the sealing area and covering in axial extension the sealing area, **the cavity defining a circumferential inner sidewall that extends in the axial direction**, wherein the cavity makes the seat part more flexible in the sealing area as compared to an identical seat part without a cavity, such that ends of the seat part around the cavity flex inwardly due to micrometric deformations of the seat part when engaged in the needle seat, and **wherein the cavity is at least partially filled with a material affixed to the circumferential inner sidewall of the cavity such that at least a portion of the material being located directly between the ends of the seat part that flex inwardly**, the material having a stiffness less than a stiffness of the seat part in order to achieve a desired flexibility of the seat part, whereby a seal is formed between the seat part and the needle seat when the seat part is engaged in the needle seat.

*Lambert's* compression spring 24 is not affixed to a *circumferential inner sidewall of a cavity*. Rather, as shown in the portion of Figure 1 copied above, compression spring 24 is compressed at either end by axial end surfaces, and does not even contact an inner sidewall, much less being affixed to an inner sidewall.

In addition, even assuming for the sake of argument that *Lambert* teaches a seat part of needle 12 having ends that flex inwardly, *Lambert's* compression spring 24 is not located directly between these ends. Rather, as shown in the portion of Figure 1 copied above, inner valve needle 18 is located *directly between* the ends of needle 12, whereas compression spring 24 is located upstream of valve needle 18 and the ends of needle 12.

For at least these reasons, *Lambert* fails to teach the limitations of amended Claim 1. *Stier* also fails to teach these limitations.

For at least these reasons, *Lambert* fails to teach the limitations of amended Claim 1. *Stier* also fails to teach these limitations.

Accordingly, Applicant submits that amended independent Claim 1 is allowable over *Lambert* and *Stier*. Further, amended independent Claims 10, and 20 are allowable over *Lambert* and *Stier* for similar reasons. Thus, Applicant respectfully requests allowance of Claims 1, 10, and 20, as well as all claims that depend therefrom.

**CONCLUSION**

Applicant has made an earnest effort to place this case in condition for allowance in light of the remarks set forth above. Applicant respectfully requests reconsideration of the pending claims.

Applicant respectfully submits a Petition for One-Month Extension of Time. The Commissioner is authorized to charge the fee of \$130.00 required to Deposit Account 50-4871 in order to effectuate this filing.

Applicant believes there are no other fees due at this time, however, the Commissioner is hereby authorized to charge any fees necessary or credit any overpayment to Deposit Account No. 50-4871 of King & Spalding L.L.P.

If there are any matters concerning this Application that may be cleared up in a telephone conversation, please contact Applicant's attorney at 512-457-2030.

Respectfully submitted,  
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